AES Contract - Statement of Work
Fund Lead Remedial Design, Technical Support, EE/CA Oversight
Coeur d'Alene Basin Water Treatment

I. PURPOSE

The purpose of this task order is to conduct a fund lead treatability study (Phase II) and remedial design for water treatment in Canyon Creek, provide technical support for water treatment projects within the Coeur d'Alene Basin, particularly Canyon Creek and provide PRP oversight of the Gem Portal EE/CA process.

II. BACKGROUND

The Bunker Hill Mining and Metallurgical Complex Site (the Site) is located in northern Idaho and northeastern Washington. The Site was listed on the National Priorities List (NPL) on September 8, 1983.

The Site is divided into three (3) Operable Units (OUs): OUs 1 and 2 focus on the 21-square mile area Bunker Hill "Box" located in the areas surrounding the historic smelting operation. OU 1 focuses on the Populated Areas of the Box; OU 2 focuses on Non-Populated areas. OU 3 of the Site (the "Basin") consists of mining contaminated areas of the South Fork of the Coeur d'Alene River (the Upper Basin), the lower Coeur d'Alene River (the Lower Basin), Coeur d'Alene Lake, and the Spokane River.

Historical mining practices in the Coeur d'Alene basin (the basin) have resulted in contamination of soil, sediment, surface water, and groundwater. Currently, substantial portions of the basin contain elevated concentrations of contaminants that are potentially hazardous to humans and to plants and animals. The Coeur d'Alene Basin OU3 ROD (USEPA 2002a) selected a remedy that set performance goals for surface water treatment in Canyon Creek and established a mandate for a Canyon Creek Treatability Study.

To reduce zinc loads to the South Fork Coeur d'Alene River, the OU3 ROD calls for treatment of up to approximately 60 cubic feet per second (cfs) of Canyon Creek surface water. The Canyon Creek effort represents the principal component of water treatment included in the selected remedy. URS under contract with EPA is in the process of completing Phase I of a treatability study. The purpose of the Phase I work is to identify and evaluate existing conventional technologies potentially applicable to Canyon Creek conditions, and conduct limited laboratory treatability testing to make recommendations for a Phase II pilot-scale test.

014-RD-RD-102Q
Canyon Creek Treatability Study
One of the purposes of this task order is to use the results from Phase I to plan, design, and implement a pilot study of the most favorable technology identified during Phase I. This effort should also consider the results from other work conducted within Canyon Creek under Clean Water Act funding, other relevant active and passive water treatment technologies within the basin, and any other relevant technologies that could meet the goals identified in the OU3 ROD.

014-TA-TA-105G
Water treatment technical assistance for RD projects
Additional support under this task order is needed for technical expertise related to other water treatment projects within the basin including the Central Treatment Plant and Arcadis proposal, Clean Water Act Water Treatment Projects, ORD Mine Waste Technology Projects, and BLM water treatment projects. As these projects proceed and new ones are being proposed it is critical that EPA evaluate these projects to ensure a consistent approach to water treatment in order to meet the goals of the OU3 ROD, address the state Operation and Maintenance obligations, and interests of the Basin Commission and TLG representatives.

014-VO-BB-103K
EE/CA oversight - Gem Portal
Removal oversight - includes O&M oversight and Long Term Response oversight
Finally, this task order provides support at the Gem Portal for PRP oversight of the development and implementation of the EE/CA to treat the adit discharge in Canyon Creek. The Gem Portal is located within the Canyon Creek drainage. The portal drains groundwater, which seeps into the underground workings of the closed Helena-Frisco and Black Bear Mines. The Gem Portal was closed by Asarco in the early 1990s and drainage conveys to Canyon Creek. In response to an AOC with EPA Asarco constructed a pilot water treatment system which includes two anaerobic biological treatments cells. The system has been operated for almost three years in order to assess effectiveness and merits of passive verses semi-passive treatment approaches as well as assess operation and maintenance requirements. In September 2004 Asarco submitted to EPA a draft EE/CA report which incorporates the results from the pilot system and makes recommendation for treatment of the Gem Portal discharge. This report is currently be reviewed by EPA.

III. GENERAL

This is a fixed rate task order requiring the Contractor to propose the most appropriate and cost-effective procedures and methodologies using accepted engineering practices and controls. Throughout the performance on this task order, the Contractor will be responsible for performing services and providing products using the most cost-efficient mix of qualified personnel applicable to meet the needs of the task order.

The Remedial Design stage, when implemented, includes the development of the actual design of the selected remedy. The contractor shall furnish personnel, services, materials and equipment required to prepare detailed plans, drawings and specifications for Remedial Actions. All activities shall be in conformance with the remedy selected and set forth in the Record of Decision (ROD), the removal action selected and set forth in the Action Memorandum, the Remedial Design, or otherwise directed by EPA. The following work breakdown structure shall be used for project scoping, scheduling, technical and cost tracking and reporting.

IV. TASKS

**** Grey-scaled tasks are not required at this time. ******

TASK 1 PROJECT PLANNING AND SUPPORT (PP)

This task includes work efforts related to project initiation and support. Typical activities the contractor may be tasked to perform include but are not limited to:

1.1 Develop work plan and associated cost estimate (for work plan changes only).

1.2 Negotiate work plan and make necessary revisions as a result of EPA comments and/or negotiated agreements (for work plan changes only).

1.3 Perform site specific project management (monitor costs, prepare Monthly Progress Report and Invoice).

1.4 Prepare Site Management Plan (SMP) that provides EPA with a written understanding of how access, security, contingency procedures, management responsibilities and field generated waste disposal are to be handled.

1.5 Prepare a site specific Health and Safety Plan (HSP) that specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures and a contingency plan in accordance with 29 CFR 1910.120 (l)(1) and (l)(2). Reference RI/FS HSP as much as practicable.

TASK 2 COMMUNITY RELATIONS (CR)

This task includes work efforts related to the update and implementation of the Community Relations Plan (CRP) for the site. When attending public meetings and open houses, contractor employees must identify themselves as employees of an EPA contractor. Typical activities the contractor may be tasked to perform include but are not limited to:

2.1 Update Community Relations Plan (CRP) as directed by EPA TOPO

2.2 Prepare fact sheets.

2.3 Prepare or update site mailing list.

2.4 Provide public meeting and/or open house support.

2.5 Implementation of other Community Relations activities as identified by the site specific Community Relations Plan or EPA.

2.6 Prepare presentation materials.

TASK 3 FIELD INVESTIGATION/DATA ACQUISITION (FI)

This task includes work efforts to acquire additional data to support Remedial Design activities. The results of this effort as well as previous studies shall be used to define contaminant levels, other physical/chemical properties, and volume. Typical activities the contractor may be tasked to perform include but are not limited to:

3.1 Environmental Survey.

3.2 Mobilization/Demobilization.

3.3 Test Boring and Monitoring Well Installation and Development.

3.4 Soil Boring, Drilling, and Testing.

3.5 Environmental Sampling.

- groundwater sampling.
- surface soil sampling.
- soil boring/permeability sampling.
- surface water and sediment sampling.
- Air monitoring.

3.6 Physical/Chemical Testing (for treatment, handling or disposal).

3.7 Field generated waste characterization and disposal in accordance with Local, State and Federal Regulations.

TASK 4 SAMPLE ANALYSIS (SN)

This task includes the analysis of environmental and waste samples. The contractor may utilize or be directed to utilize a variety of mechanisms to implement this task including: field screening using mobile facilities or field portable equipment, the Contract Laboratory Program (CLP), laboratories procured under subpool or Team subcontracts, the Regional Environmental Services Division (ESD), the Environmental Response Team (ERT) laboratory,

or Regionally procured laboratories.

The contractor shall prepare a Field Sampling Plan (FSP) that describes the number, type, and location of samples and type of analyses. Reference the RI/FS FSP as much as practicable. Prepare a Quality Assurance Project Plan (QAPP) in accordance with EPA QA/R-5 (latest draft/revision). Reference RI/FS QAPP as much as practicable.

TASK 5 ANALYTICAL SUPPORT AND DATA VALIDATION (AN)

This task includes work efforts involved in scheduling, coordination, tracking, and oversight of sample analyses and validation of analytical data produced. Typical activities the contractor may be tasked to perform include but are not limited to:

5.1 Collect, prepare, and ship environmental samples in accordance with the Field Sampling Plan (FSP). The following types of sampling may be required:

- Field screening.
- Groundwater sampling.
- Surface and subsurface soil sampling.
- Surface water and sediment sampling.
- Air monitoring and sampling.
- Biota sampling.
- Other types of media sampling and screening.

5.2 Develop Data Quality Objectives (DQO) for each sampling event; these DQOs shall be the determinative factor for assessing the success or failure of the sampling.

5.3 Request, obtain, and perform oversight of analytical services in compliance with EPA requirements.

5.4 Coordinate with the EPA Sample Management Office (SMO), the Regional Sample Control Coordinator (RSCC), and/or the Environmental

Services Division (ESD) regarding analytical, data validation, and quality assurance issues.

5.5 Develop an EPA-approved laboratory quality assurance program that provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions to be used in cases where performance does not meet the standards of the program. Develop/review qualifications of the laboratory for the given analytical requirements.

5.6 Implement the EPA-approved laboratory quality assurance program which provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions.

5.7 Provide sample management including chain-of custody procedures, information management, sample retention, and 10-year data storage.

5.8 Perform data validation, the process by which the quality of the data, the defensibility of the data, and the chain of custody are verified. The contractor shall perform data validation in accordance with Regional guidelines.

5.9 Review data for useability for its intended purpose.

5.10 Provide reports on data validation and useability.

TASK 6 DATA EVALUATION (DE)

This task includes work efforts related to the analysis of data for incorporation into the design effort. Typical activities the contractor may be tasked to perform include but are not limited to:

6.1 Data useability evaluation/field QA/QC.

6.2 Data reduction and tabulation.

6.3 Comparison of data acquired during design with historic data.

6.4 Data trend evaluation and/or modeling and submission of Technical Memorandum.

TASK 7 TREATABILITY STUDY/PILOT TESTING (TT)

Note: Costs associated with this task are to be tracked separately. The contractor shall report these costs under the following task order reference number/site ID: 014-RD-RD-102Q Canyon Creek Treatability Study

The ROD assumes the yearly average treatment reduction of dissolved zinc load of 322 pounds per day for Canyon Creek. The ROD required that the treatment be demonstrated for creek and groundwater near the mouth of the creek. The Canyon Creek Treatability Study has been divided into two phases, Phases I and II. Phase I is being completed by URS for EPA. The purpose of Phase I is to identify and evaluate existing technologies potentially applicable to Canyon Creek conditions, perform limited laboratory treatability testing and make recommendations for a Phase II effort.

Phase II, which is the subject of this task order, is expected to build on the results of Phase I with the design and implementation of a pilot-scale testing program for a "most favorable" technology that could meet the Canyon Creek water treatment goals of the selected remedy. For the conditions identified in the ROD, the treatment technology anticipated at this time is HDS lime stabilization/coprecipitation used in combination with a high-speed ballasted-microsand separation technology.

This task includes work efforts related to the conduct of laboratory screening, bench-scale and pilot-scale treatability studies of the selected remedy. Typical activities the contractor may be tasked to perform include but are not limited to:

7.1 Provide test facility and equipment.

7.2 Test and operate equipment.

7.3 Retrieve sample for testing.

7.4 Prepare Technical Memorandum.

7.5 Characterization and disposal of residuals in accordance with Local, State and Federal Regulations.

TASK 8 PRELIMINARY DESIGN (PD)

This task includes work efforts related to the preparation of the preliminary design. Specific components the contractor may be tasked to prepare include the following:

8.1 Recommended project delivery strategy and scheduling.

8.2 Preliminary construction schedule, including project phasing.

8.3 Specifications outline.

8.4 Preliminary drawings.

8.5 Basis of design report.

8.6 Preliminary cost estimate (+50 percent and -30 percent accuracy) Prepare construction estimate. Initiate discussion regarding 6% design limitation. Evaluate existing data and documents as directed by EPA.

8.7 A detailed statement of how all Applicable or Relevant and Appropriate Requirements (ARARs), Federal and State public health and safety environmental requirements and standards will be met.

8.8 Land Acquisition/Easement Requirements.

8.9 Technical Support to EPA/State/USACE in Land Acquisition.

8.10 Conduct and/or assist in Value Engineering screening.

TASK 9 EQUIPMENT/SERVICES/UTILITIES (ES)

This task includes efforts necessary to procure long-lead equipment, services, and/or utilities identified during the preliminary design phase.

TASK 10 INTERMEDIATE DESIGN (ID)

This includes work efforts related to the preparation of the intermediate design. Specific components the contractor may be tasked to prepare include the following:

10.1 Update construction schedule.

10.2 Preliminary specifications.

10.3 Intermediate drawings.

10.4 Basis of design report.

10.5 Revised cost estimate (+30 percent and -15 percent accuracy)

10.6 If required, a revised detailed statement of how all Applicable or Relevant and Appropriate Requirements (ARARs), Federal and State public health and environmental requirements and standards will be met.

10.7 An intermediate design review/briefing for EPA.

10.8 Initiate Value Engineering (VE) study if VE screening identified potential project savings.

TASK 11 PRE-FINAL/FINAL DESIGN (FD)

This task includes work efforts related to the preparation of the Pre-final design.

Specific components the contractor may be tasked to prepare include the following:

11.1 Subcontract award document.

11.2 Pre-final design specifications.

11.3 Pre-final drawings.

11.4 Basis of design report/design analysis.

11.5 Revised cost estimate (+15 percent and -10 percent accuracy)

11.6 A pre-final/final design review/briefing for EPA.

11.7 Biddability (offerability) and constructability reviews.

11.8 Revised Project Delivery Strategy.

11.9 The 100% design submittal shall include the final plans and specifications in reproducible format, final cost estimate and a schedule of the overall Remedial Action.

11.10 Report results of Value Engineering (VE) study and incorporate accepted VE recommendations into final design.

TASK 12 REUSE PLANNING (RV)

Assist in the review and evaluation of reuse plans and redevelopment plans submitted to ensure long-term protectiveness of the RD and remedy.

TASK 13 POST REMEDIAL DESIGN SUPPORT (DS)

The contractor shall solicit the procurement, evaluate offers received and inform the EPA Contracting Officer of the best qualified/cost effective offer. (Award of the contract will be part of Remedial Action work assignment.) Specific activities the contractor may be asked to perform include but are not limited to the following:

13.1 Prebid (Pre-Solicitation) Activities.

-Duplication and distribution of contract documents.

-Advertising/soliciting of bids.

-Issuing addenda.

-Prebid (pre-solicitation) meetings.

-Resolution of bidder (offeror) inquiries.

-On-site visits.

-Compilation of contract documents.

-Resolicit bids/offers and repackage documents if necessary.

13.2 PreAward Activities.

-Receipt of bids (offers).

-Determination of responsive, responsible bidders (offerors).

-Bid (offer) tabulation.

-Bid (offer) analysis.

-Receipt of follow-up items from lowest responsible bidder (offeror)

-Review of EEO, MBE requirements, SDB subcontracting plans, etc.

-Reference checks.

-Request for consent from EPA.

Before Remedial Action field activities can begin, several site specific plans shall be written to establish procedures to be followed by the contractor in performing field, laboratory and analysis work in addition to community and agency liaison activities. These plans include but are not limited to:

13.3 Site Management Plan.

13.4 Sampling and Analysis Plan.

13.5 Health and Safety Plan.

13.6 Community Relations Plan.

The existing plans developed for the Remedial Design, amended at the direction of EPA TOPO, may be used if appropriate.

TASK 14 EXPERT TECHNICAL ASSISTANCE (ET)

Note: Costs associated with this task are to be tracked separately. The contractor shall report these costs under the following task order reference number/site ID: 014-TA-TA-105G Water treatment technical assistance for RD projects.

This task includes providing expert knowledge to the EPA in a variety of technical areas, including but not limited to: surface and ground water treatment for removal of metals, groundwater extraction, control of acid mine drainage, passive and innovative water treatment technologies. Specific activities may include technical assistance associated with the following activities:

Clean Water Act Grant water treatment projects in Canyon Creek
Treatability Studies and Pilot Projects in Canyon Creek
Groundwater and AMD issues associated with the Bunker Hill Mine and Bunker Hill groundwater.

When attending public meetings, contractor employees must identify themselves as employees of an EPA contractor. Typical activities the contractor may be tasked to perform include but are not limited to:

14.1 Attend technical meetings and briefings at the direction of the EPA TOPO.

14.2 Provide assistance in the development and/or review of technical information/documentation relating to the site (e.g., application of a specific technology on a specific site).

14.3 Provide community relations support.

14.4 Evaluate existing data as directed by EPA.

TASK 15 REVIEW OF PRP REMOVAL SUBMITTALS (RQ)

Note: Costs associated with this task are to be tracked along with Task 16. The contractor shall report these costs under the following task order reference number/site ID: 014-VO-BB-103K EE/CA and Removal oversight - Gem Portal

This task involves work efforts to review PRP submittals associated with development of the Gem Portal EE/CA report and planning and carrying out the removal action. The contractor shall perform a technical review and generate comments in the form of a Technical Memorandum. All final decisions regarding PRP submittals shall remain the sole responsibility of EPA. The following factors shall be considered during the review of documents:

- Technical requirements of the EE/CA and design.
- Standard professional engineering practices.
- Applicable statutes, EPA policies, directives and regulations.
- Spot checking design calculations to assess accuracy and quality of design activities.
- Examination of planning and construction schedules for meeting project completion goals.

Typical documents the contractor may be tasked to review include but are not limited to the following:

I. Review of Gem Portal EE/CA documents

- EE/CA Reports (Revised Draft and Final)
- Gem Portal Pilot Test Data Monitoring Report
- Gem Portal AOC and SOW.
- Designs (Preliminary, Intermediate, Pre-Final, and Final).
- Site Management Plan for Construction.
- Action Work Plan.
- O&M Plan.
- As Built Drawings.
- After Action Report.

TASK 16 REMOVAL OVERSIGHT (VO)

Note: Costs associated with this task are to be tracked along with Task 15. The contractor shall report these costs under the following task order reference number/site ID: 014-VO-BB-103K EE/CA and Removal oversight - Gem Portal

This task includes work efforts to provide technical field oversight of PRP activities to ensure construction takes place in accordance with EPA accepted plans and specifications. The oversight activities shall also include observations

regarding the manner in which the Quality Assurance, Sampling Plans, and Health & Safety Plans are implemented. The amount of oversight will be dependent upon the type and complexity of the Action and is at the discretion of the EPA TOPO. The contractor shall maintain a field logbook (including photographs as appropriate) which shall be provided to EPA. The contractor shall provide oversight of O&M or Long-term Response Actions performed by PRPs as determined to be necessary by EPA

TASK 17 WORK ASSIGNMENT CLOSE OUT (CO)

This task includes efforts related to work assignment close out. Typical activities the contractor may be tasked to perform include but are not limited to:

17.1 Return of documents to EPA or other document repositories.

17.2 File duplication, distribution, and storage.

17.3 File archiving to meet Federal Records Center requirements.

17.4 Use of microfiche, microfilm, or other EPA-approved data storage technology (STORET).

17.5 Prepare a final cost estimate in accordance with Regional guidance or other procedures as specified in the task order.

V. PERIOD OF PERFORMANCE:

The period for performance for this task order is from September 2004 to December 2006.

VI. PERFORMANCE/ACCEPTANCE CRITERIA

The contractor's deliverables will be reviewed by the government for acceptability.

Unacceptable deliverables will be returned to the contractor with comments and directions for necessary corrections or rework which may be applicable.

Cost and Performance

Work defined under this Task Order will be completed within the established Work Plan costs and schedules.

Written material will be reviewed for the following subjective characteristics:

4. The work product submitted will reflect a good grasp and understanding of the technical issues, thorough knowledge of the subject matter and analysis of all the information and data available.

5. All written work products are to consist of high technical quality material based on sound science and good professional judgement.

6. All deliverables should be grammatically well-written with few typographical errors, and the need for revisions held to a minimum.

7. All reviews and activities shall be conducted in accordance with EPA policies and regulations.

Monitoring Technique

EPA will review technical deliverables and monthly invoices for adherence to performance standard requirements.

Contractor Incentive

Contractors performance will be assessed informally by the TOPO during the execution of the work. A final performance assessment will be developed upon completion and will be used in the National Institute of Health's contractor evaluation system and on the task order performance evaluation.

VI. CONTACTS:

Task Order Project Officer (TOPO): Bill Adams (206) 553-2806

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